

The IBUC Advantage

All IBUCs are equipped with cutting-edge intelligent technology:

- Highest quality & exacting performance guaranteed through individual unit testing over temperature
- Superior linearity for maximum useable output power
- Amplifier overdrive protection
- User-selectable AGC/ALC for optimal performance & compatibility with modem adaptive coding
- New high capacity microprocessor & extended M&C functions
- Weatherized RJ45 Ethernet interface for simplified connection

ULTIMATE MANAGEMENT & CONTROL

- » Local Web Interface & NMS-Friendly SNMP «
- » 70+ User Configurable Thresholds & Alarms «
- » Upgraded Event Log with 1,000 Sensor Readings «
- » Performance Trend Analysis Tools & Statistical logs «
- » Embedded Web Pages for Universal Web Browser Access «

Ku-Band IBUC 3G

Compact Size Without the Compromise



25W
to
40W

GaN
Tech
Amplifier

3
Year
Warranty

Applications

Gallium Nitride amplifier technology facilitates higher power in a smaller outdoor enclosure – just what is needed for the IBUC 3G. Specially designed for mobility, the IBUC 3G is a full-featured IBUC in a new, smaller & lighter package. An excellent fit with very small aperture or flat panel antennas where size & weight are key considerations.

Yet, all of the IBUC performance & manageability advantages remain. The included web interface enables terminal optimization during installation & provides a suite of trouble-shooting tools. An auto-ranging DC power supply is accessed via external power connector or IFL cable.

Options

- 1+1 Transmit Redundancy
- High Stability Internal 10 MHz Reference with Auto-Detection
- Standard or Full Ku-Band Models
- Mounting Brackets
- Type N or F-Type Input Connectors
- Handheld Terminal

Ku-Band IBUC 3G

Frequency Range

	RF	IF
Band 1 Std Ku	14.00 to 14.50 GHz	950 to 1450 MHz
Band 2 Full Ku	13.75 to 14.50 GHz	950 to 1700 MHz
Band 3 Low Ku	12.75 to 13.25 GHz	950 to 1450 MHz

Input

VSWR/ Impedance	1.5:1 / 50 Ohm
Input Connector	Type N Female (50 Ohm)
Input Connector Options	Type F (75 Ohm), TNC (50 Ohm)
Input Power Detector Range	-55 to -20 dBm

Gain

Small Signal Gain (L-band to RF) with attenuator set to 0 dB

25W	75 dB min
40W	77 dB min

Attenuator Range	30 dB variable in 0.1 dB steps
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Gain Flatness

Full Band	4 dB p-p max
36 MHz	1.5 dB p-p max
1 MHz	0.25 dB p-p max

Gain Variation Over Temperature

Open Loop	3 dB p-p max
With AGC	1 dB p-p max

RF Output

Interface	WR75 Cover with Groove	
VSWR	1.3:1 max	
Rated Output Power	P _{Sat} (Typ)	P _{Lin} (min)
25W	+44 dBm	+41 dBm
40W	+46 dBm	+43 dBm

P_{Lin} is the maximum linear power as defined by MIL STD 188-164B

Level stability with ALC	± 0.5 dB
Output power detector range	Rated power to -20 dB
Power reading accuracy	± 1.0 dB max.

Spurious

In Band -65 dBc

Out of Band Complies with EN 301 428/430 & MIL-STD 188-164B

Harmonics @ P _{Lin}	-50 dBc max.
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Output Noise Power Density

Tx < - 79 dBm/Hz
Rx < - 145 dBm/Hz

SSB Phase Noise

SSB Phase Noise	External Reference	IBUC 3G
10 Hz	-125 dBc/Hz	-45 dBc/Hz
100 Hz	-145 dBc/Hz	-65 dBc/Hz
1 KHz	-160 dBc/Hz	-80 dBc/Hz
10 KHz	-165 dBc/Hz	-85 dBc/Hz
100 KHz	N/A	-90 dBc/Hz
1 MHz	N/A	-115 dBc/Hz

External Reference (Multiplexed on TX IFL)

Frequency & Level	10 MHz	-12 to +5 dBm
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Internal Reference - Optional

Local Oscillator Frequency

Sense	Non-Inverting
Band 1	13050 MHz
Band 2	12800 MHz
Band 3	11800 MHz

IBUC Power Supply

Voltage	25W, 40W	38 to 76 VDC
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Power Consumption	@P _{Lin} /P _{Sat}
25W	130W/175W
40W	205W/265W

Monitor & Control

Ethernet (HTTP, Telnet, SNMP) via RJ45 Connector

RS232/485, Handheld Terminal via MS-Type Connector

FSK multiplexed on TX IFL

Environmental

Operating Temperature	-40°C to +55°C
Relative Humidity	100% Condensing
Altitude	10,000 ft (3,000 m) ASL

Mechanical

25W, 40W	7 x 5 x 4 in. 178 x 127 x 102 mm.
	6.5 lbs
	2.9 kgs

Specifications subject to change without notice.

Updated 3/8/2021

Questions? Contact Us

1+(408) 782-5911
Sales@TerrasatInc.com

315 Digital Drive
Morgan Hill, CA 95037
www.TerrasatInc.com